



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200  
ATLANTA, GEORGIA 30303-1200

May 4, 2023

Jamie Coleman  
Regulatory Affairs Director  
Southern Nuclear Company  
7825 River Road, BIN 63031  
Waynesboro, GA 30830

**SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 3 – NRC INITIAL TEST  
PROGRAM AND OPERATIONAL PROGRAMS INTEGRATED INSPECTION  
REPORT 05200025/2023010**

Dear Jamie Coleman:

On March 31, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Vogtle Electric Generating Plant, Units 3. The enclosed inspection report documents the inspection results, which the inspectors discussed on April 25, 2023, with Mr. Glen Chick, Vogtle Electric Generating Plant, Units 3 & 4 Executive Vice President, and other members of your staff.

The inspection examined a sample of construction activities conducted under your Combined License (COL) as it relates to safety and compliance with the Commission's rules and regulations and with the conditions of these documents. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any), will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this letter, please contact us.

Sincerely,



Signed by Davis, Bradley  
on 05/04/23

Bradley J. Davis, Chief  
Construction Inspection Branch 2  
Division of Construction Oversight

Docket No.: 5200025

License No: NPF-91

Enclosure:

NRC Inspection Report (IR) 05200025/2023010

w/attachment: Supplemental Information

cc w/ encl: Distribution via LISTSERV

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 – NRC INITIAL TEST PROGRAM AND OPERATIONAL PROGRAMS INTEGRATED INSPECTION REPORTS 05200025/2023010 – DATED May 04, 2023

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DATE	05/01/2023	05/03/2023	05/04/2023		

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**U.S. NUCLEAR REGULATORY COMMISSION  
Region II**

Docket Numbers: 5200025

License Numbers: NPF-91

Report Numbers: 05200025/2023010

Enterprise Identifier: I-2023-010-0048

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Vogtle Unit 3 Combined License

Location: Waynesboro, GA

Inspection Dates: January 1, 2023, through March 31, 2023

Inspectors: J. Eargle, Senior Resident Inspector - Testing, Division of  
Construction Oversight (DCO)  
S. Egli, Senior Construction Inspector, DCO  
J. Parent, Resident Inspector, DCO  
J. England, Senior Construction Inspector, DCO  
J. Montgomery, Senior Reactor Inspector, Division of Reactor  
Safety

Approved by: Bradley J. Davis, Chief  
Construction Inspection Branch 2  
Division of Construction Oversight

Enclosure

## SUMMARY OF FINDINGS

Inspection Report (IR) 05200025/2023010; January 1 – March 31, 2023; Vogtle Unit 3 Combined License, initial test program and operational programs integrated inspection report.

This report covers a three-month period of announced inspections of startup testing and operational programs by resident and regional inspectors. The significance of most findings is indicated by their color (Green, White, Yellow, or Red), using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process." Cross-cutting aspects are determined using IMC 0310, "Aspects Withing the Cross-Cutting Areas." All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy. The NRC's program for oversight of AP1000 start-up activities is described in IMC 2514, "AP1000 Reactor Inspection Program – Startup Testing Phase."

### **A. NRC-Identified and Self Revealed Findings**

None

### **B. Licensee-Identified Violations**

None

## REPORT DETAILS

### Summary of Plant Construction Status

During this report period for Unit 3, the licensee completed pre-critical testing, and surveillance testing to meet Technical Specification Mode 2 requirements prior to commencing Unit 3 reactor startup. The licensee also completed initial criticality, low power physics testing, and surveillance testing to meet Technical Specification Mode 1 requirements prior to entering power operation.

### 3. OPERATIONAL READINESS

#### Cornerstones: Operational Programs

#### IMC 2504, Construction Inspection Program – Inspection of Construction and Operational Programs

##### 3P01 Fire Protection Program (FPP)

- 64705-02.01 - Implemented Operational Feature of the FPP
- 64705-02.02 - Adequacy and operational readiness

##### a. Inspection Scope

The inspectors reviewed aspects of the licensee's FPP to determine if reasonable assurance existed at the time of the inspection to verify that the reviewed aspects of the program met the requirements of Title 10 of the Code of Federal Regulations, Part 50.48, "Fire Protection." The inspectors reviewed the site's FPP document, fire hazards analysis, and fleet and site-specific procedures to determine if the requirements of BTP CMEB 9.5-1 were incorporated into the FPP.

Specifically, the inspectors reviewed various aspects of the FPP to determine if:

- fire protection features were in place to protect safe shutdown (SSD) capability and satisfied the license specific separation requirements;
- adequate operational procedures for SSD of the plant due to fire were in place;
- the licensee's alternative shutdown methodology properly identified the systems and components necessary to achieve and maintain SSD conditions for each fire area, room, or zone selected for review;
- personnel required to place and maintain the plant in hot shutdown following a fire using the alternative/dedicated shutdown system were properly trained and available at all times among the onsite shift staff, exclusive of fire brigade; adequate procedures for the use of the alternative shutdown system were in place; and that the licensee conducts periodic operational tests of the alternative shutdown transfer capability and that the tests are adequate to prove the functionality of the alternative shutdown capability;
- communications equipment used by the fire brigade were functional;

- manual suppression equipment to be used by the fire brigade was available and functional; and
- the pre-operational and startup testing program for fire protection systems and components provided assurance that the equipment was ready for plant commercial operation.

b. Findings

No findings were identified.

IMC 2514, AP1000 Reactor Inspection Program – Startup Testing Phase

3T01 Initial Test Program (Startup)

a. Inspection Scope

The inspectors used appropriate portions of IP 72304 to observe the licensee's performance of the following procedure for demonstrating the performance of the rapid power reduction system, entering Mode 2, achieving initial criticality, and testing to determine moderator temperature coefficient. The inspectors observed the conduct of these procedures to verify if they satisfied the applicable quality and technical requirements of the UFSAR and the Technical Specifications.

- 3-PLS-ITPS-605, Rapid Power Reduction Startup Test Procedure, Version
- (Ver). 4.0
- B-GEN-RES-004, Low Power Physics Testing, Ver. 7.0
- 3-GEN-ITPS-611, Initial Criticality and Low Power Physics Test Startup Test Procedure, Ver. 3.2

b. Findings

No findings were identified.

3T02 Initial Test Program (Startup)

a. Inspection Scope



The inspectors used appropriate portions of IP 72304 to review the results of the following procedure used to verify if the operators were capable of transferring controls from the main control room to the remote shutdown workstation in order to bring the plant to hot standby conditions from normal operating pressure and temperature, and place normal residual heat removal system in service to cool the plant an additional 50 degrees Fahrenheit without exceeding cooldown limits. The results were reviewed to verify whether the test satisfied the applicable technical and quality requirements of the UFSAR.

- 3-GEN-ITPS-640, Remote Shutdown Workstation Startup Test Procedure, Section 4.2, Ver. 3.0

b. Findings

No findings were identified.

3T03 Initial Test Program (Startup)

a. Inspection Scope

The inspectors used appropriate portions of IP 72304 to review the licensee's results of the following procedures for entering Mode 2, achieving initial criticality, and testing to determine moderator temperature coefficient. The inspectors reviewed the procedures to verify if they satisfied the applicable quality and technical requirements of the UFSAR and the Technical Specifications.

- B-GEN-RES-004, Low Power Physics Testing, Ver. 7
- 3-GEN-ITPS-611, Initial Criticality and Low Power Physics Test Startup Test Procedure, Ver. 3.2

b. Findings

No findings were identified.

**4. OTHER INSPECTION RESULTS**

4OA6 Meetings, Including Exit

.1 Exit Meeting.

On April 25, 2023, the inspectors presented the inspection results to Mr. Glen Chick, Vogtle Electric Generating Plant, Units 3 &4 Executive Vice President, and other licensee and contractor staff members. Proprietary information was reviewed during the inspection period, but was not included in the inspection report.

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licenses and Contractor Personnel

S. Briggs, Testing and Turnover Director  
A. Nix, ITP Director  
E. Loehlein, Operations Director  
J. Coleman, Regulatory Affairs Director  
R. Nicoletto, NI Manager  
J. Hartman, Shift Operations Manager  
D. Trafford, Operations Support Manager  
C. Parkes, Operations Services Manager  
S. Leighty, Regulatory Affairs Manager  
W. Garrett, Licensing Manager  
C. Houseal, Startup Manager  
J. Olsen, NI Supervisor  
F. Bonilla, Startup  
M. Lindquist, Startup  
K. Middlebrooks, Startup  
P. Miner, Startup  
J. Abshire, Startup  
J. Andino Valle, Startup  
M. Easter, Startup

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

<u>Item Number</u>	<u>Type</u>	<u>Status</u>	<u>Description</u>
None			

**LIST OF DOCUMENTS REVIEWED**

**3. OPERATIONAL READINESS**

**Section 3P01**

Procedures

3-AOP-601, Evacuation of Main Control Room, Revision (Rev.) 3  
3-AOP-902, Fire Response Emergency, Ver. 2.1  
B-GEN-ENG-008, Fire Protection Functionality and Fire Protection Impairments (FPI) Requirements, Ver. 5  
B-FPS-MMM-004, Portable Fire Extinguishers and Fire Hose Stations Visual Inspection, Ver. 5

Miscellaneous

SV3-FPS-ITR-800337, Unit 3 Fire Detection Alarm Testing: ITAAC 2.3.04.10, Rev. 0  
SV3-PMS-ITR-800543, Unit 3 PMS Transfer of Control Capability from the MCR to the RSW: ITAAC 2.5.02.08b.ii, Rev. 0  
APP-AF01-Z0R-002, Fire Extinguisher Datasheets and Report for Nuclear Island Areas, Rev. 0

## List of Open Fire Impairment Permits, 1/3/2023

### Work Orders

SV3-FPS-T0W-1123556, Fire Protection Testing Portable Communication Equipment, Rev. 1  
SV3-FPS-T0W-1123549, Periodic Testing of Portable Fire Extinguishers, Rev. 0  
SV3-FPS-T0W-1068464, Perform FPS System Pre-Operational Testing Per 3-FPS-ITPP-502, Rev. 0  
SV3-FPS-T0W-1058692, Perform 3-FPS-ITPP-501, Motor Driven Fire Pump, Rev. 0  
SV3-FPS-T0W-1058419, Component Test on SV3-FPS-MP-01A, Rev. 0  
SV3-FPS-T0W-1058435, Perform Component Testing on SV3-FPS-MP-02, Rev. 0  
SV3-FPS-T0W-1058427, Component Test on SV3-FPS-MP-01B, Rev. 0  
SNC 1341467, (1M-NEIL) 012 – Aux Building (RCA) Fire Extinguisher Inspection, Rev. 0  
SNC 1340791, (1M-NEIL) 012 – Aux Building (Non-RCA) Fire Extinguisher Inspection, Rev. 0

### Design Changes

APP-AF01-GEF-006, Fire Extinguisher Updates, Rev. 0

### Condition Reports Reviewed During Inspection

TE 45001409, Action: Update Pre-Fire Plans to Reflect Field Walkdowns of As-Built, Equipment Locations, 9/6/2022

### Condition Reports Generated During Inspection

CR 10938827, UFSAR Table 9.5.1-1 Does Not Accurately Point to Fire Brigade's Primary Communication Capability

### **Section 3T01**

3-GEN-ITPS-610, Initial Criticality and LPPT Sequence Startup Test Procedure, Ver. 2  
NMP-RE-019, Beacon 10 Estimated Critical Condition, Ver. 4.1  
3-GOP-302, Reactor Startup Mode 3 to Mode 2, Ver. P=0.15  
B-GEN-RES-004, Low Power Physics Testing, Ver. 7  
3-RLS-CSP-001, Primary System Sampling Using the RSI Primary Sampling Panel, Ver. 2  
NMP-CH-701, Determination of Boron, Ver. 4

### **Section 3T02**

3-GEN-ITPS-640, Remote Shutdown Workstation Startup Test Procedure, Ver. 3.0  
3-GEN-ITPS-606, Post Fuel Load Pre-critical Test Sequence, Ver. 5.1  
3-GOP-205, Plant Cooldown from Mode 3 to Mode 5, Ver. L=0.11  
3-AOP-601, Evacuation of Control Room, Ver. 3.0  
WO 1115729

### **Section 3T03**

NMP-RE-019, Beacon 10 Estimated Critical Condition, Ver. 4.1  
3-GOP-302, Reactor Startup Mode 3 to Mode 2, Ver. P=0.15  
NMP-RE-008-F01, Detailed Reactivity Management Plan, Power Ascension Testing - Initial Criticality to Completion of 25% RTP Plateau, Ver. 2.1